

REMARKS

By the present communication, claims 1, 9-11, 13, 23, 25, 27 and 29 are amended and claims 2 and 14-16 are canceled. No claims are newly added. Claims 17 and 18 were previously canceled.

Upon entry of this response, claims 1, 3-13, and 19-29 will be pending, with claims 19-28 withdrawn from consideration. No impermissible new matter has been added by way of amendment. Thus, support for revised claims 1, 9-11, 13, 23, 25, 27 and 29 may be found throughout the original specification, including but not limited to the following passages:

Claims 1, 23, 25, and 27 - paragraphs 11 and 21 of the instant application published as US 2006/0142515;

Claims 9, 13, and 29 - paragraphs 11 and 21 of the published application; and

Claim 10-11 - the claims as originally filed.

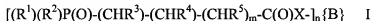
Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and these remarks.

Since claim 16 has been canceled, the pending objection to it is rendered moot.

Claims 1 and 3-12 stand rejected for alleged anticipation by U.S. 4,066,597, issued to Jäger *et al.* Applicant respectfully traverses this rejection.

Present claim 1 reads as follows, with emphasis added:

A compound of the formula (I)



in which the substituents and indices have the following meanings:

X is NH, NR⁶ or S,

R¹ and R² are, independently of one another, hydrogen or optionally substituted alkyl, alkenyl, aryl, alkylaryl or arylalkyl or optionally substituted alkoxy, aryloxy, alkylaryloxy, arylalkyloxy, or hydroxy;

R³, R⁴, R⁵ and R⁶ are, independently of one another, hydrogen or optionally substituted alkyl, alkenyl, aryl, alkylaryl, or arylalkyl,

{B} is a straight-chain or branched substituent with (i) *more than one organically polymerizable group that contains a C=C moiety*, and (ii) at least 4 carbon atoms, wherein at least one C=C moiety is bonded to the remaining part of {B} via an amine or thio functional group,

m is an integer from 0 to 20,

n is an integer from 1 to 20;

apart from compounds in which {B} exhibits one or more isolated or oligomerized isoprene groups.

Although Jäger teaches phosphonate compounds, the reference fails to teach a phosphonate compound having more than a single C=C moiety in the portion of the molecule representing {B}. Jäger cannot anticipate the presently claimed invention, therefore, and so Applicant requests withdrawal of this the rejection.

Claim 2 also is rejected over Jäger. The cancellation above of claim 2, without prejudice or disclaimer, moots this rejection, however.

Claims 13 and 14 are rejected over Jäger in view of U.S. 4,612,384, issued to Omura *et al.* Yet, Jäger and Omura together fail to suggest the use of more than a single C=C moiety in the {B} moiety of the claimed compounds of formula $[(R^1)(R^2)P(O)-(CHR^3)-(CHR^4)-(CHR^5)_m-C(O)X-]_n\{B\}$. Accordingly, Applicant respectfully traverses this rejection.

In the phosphonate compounds taught by Jäger, there is either a single C=C moiety or a saturated alkyl moiety in the portion corresponding to {B} in the claimed compounds. Because there is no suggestion of a phosphonate compounds having more than one C=C moiety in the portion of the claimed compound represented by {B}, Applicant asserts that there is no suggestion in Jäger of the claimed compounds, nor does Jäger give reason to the person of ordinary skill in the art to modify the compounds. Omura fails to compensate for this deficiency of Jäger, *inter alia*.

As Omura's title reflects, this reference is directed to *phosphate* monoester adhesive compositions. As Omura's formula (I) shows, moreover, the phosphate compounds have the basic structure: $H_2C=C(R_1)-C(O)X_1-R_2-(X_2)_2P(O)(OH)_2$, where X is O, S, or NH. Note also that in

formula (I) of Omura, only a single C=C moiety is present. Omura also teaches compounds of formula II, in which two C=C moieties are present, however the phosphate connection of the compounds is through R₄. Further, formula II of Omura is only directed to phosphates and not the presently claimed phosphonates.

Omura lists numerous compounds of formulas (I) and (II) in columns 11-24, and in Tables 12 and 13. Where the compounds contain a phosphorus residue, it is either a phosphate residue and does not conform to the presently claimed compounds, or where there are examples of phosphonate compounds (see compounds 23 in Table 12, and 17 and 18 in Table 13), they only contain a single C=C moiety. In view of this, Applicant submits that the compounds of Omura cannot be regarded as conforming to the presently claimed phosphonate compounds of formula $[(R^1)(R^2)P(O)-(CHR^3)-(CHR^4)-(CHR^5)_m-C(O)X-]_n\{B\}$, where “{B} is a straight-chain or branched substituent with (i) *more than one organically polymerizable group that contains a C=C moiety*, and (ii) at least 4 carbon atoms, wherein at least one C=C moiety is bonded to the remaining part of {B} via an amine or thio functional group...” Applicant respectfully requests, therefore, that the Examiner withdraw the noted rejection.

Claims 15, 16, and 29 are separately rejected over the above-discussed Jäger-Omura combination plus U.S. 4,514,342 to Billington, *et al.* Applicant traverses this rejection, too.

Applicant has demonstrated that Jäger and Omura fail to suggest the use of more than a single C=C moiety in the {B} moiety of the claimed compounds of formula $[(R^1)(R^2)P(O)-(CHR^3)-(CHR^4)-(CHR^5)_m-C(O)X-]_n\{B\}$. Billington fails to remedy this deficiency.

Like Omura, Billington is directed to phosphate compounds $[(RO)_2P(O)OR^1]$ as opposed to the presently claimed phosphonates $[(RO)_2P(O)R^1]$. The compounds of Billington have the formula $[H_2C=C(R^1)C(O)O]_nROP(O)(OH)_2$, where R¹ is H, C₁-C₃ alkyl, halogen, or CN. To prepare the compounds, Billington teaches the reaction of a polyhydric alcohol with at least four hydroxyl groups, with at least three of the hydroxyl groups being esterified with an acrylate. Column 2, lines 62-66. There is no teaching or suggestion, however, of the required element of “{B} is a straight-chain or branched substituent with (i) more than one organically polymerizable group that contains a

C=C moiety, and (ii) at least 4 carbon atoms, wherein at least one C=C moiety is bonded to the remaining part of {B} *via an amine or thio functional group*,” as is presently claimed. As such, Applicant submits that Billington fails to fill the deficiencies of Jäger and Omura.

In view of the foregoing, Applicant submits that the grounds for each of the remaining rejections have been overcome. Applicant respectfully requests that the Examiner withdraw the noted rejections and allow the application to proceed to issuance.

Request for Rejoinder of Claims

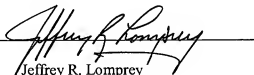
In the non-final office action of May 19, 2009, the Examiner stated that because the withdrawn claims are directed towards a method of making the elected compounds, rejoinder would be proper at the time the compound is found patentable. As shown above, the claimed compounds are free of the cited art, and so Applicant requests rejoinder of the withdrawn claims and the movement of all claims to issuance.

Favorable reconsideration is requested, therefore. Examiner Heincer is invited to contact the undersigned directly, should he feel that any issue warrants further consideration.

Respectfully submitted,

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By



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The Commissioner is hereby authorized to charge any additional fees, which may be required under 37 C.F.R. §§ 1.16-1.17, and to credit any overpayment to Deposit Account No. 19-0741. Should no proper payment accompany this response, then the Commissioner is authorized to charge the unpaid amount to the same deposit account. If any extension is needed for timely acceptance of submitted papers, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of the relevant fee(s) from the deposit account.